"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

UDC 546.3+19.81.82+541.11

USSR

SAVIN, V. D., and GOLIKOV, V. V., State Scientific Research and Planning Institute of Rare Metals

"Basic Regularities of Combined Reduction of Titanium and Tin by Magnesium From Solution of Tetrachloride Compounds"

Ordzhonikidze, Izvestiya Vysshikh Uchevnykh Zavedeniy, Tsvetnaya Metallurgiya, No 1, 1971, pp 60-64

Abstract: This work presents a study of the primary regularities involved in the formation of alloys in the system Ti-Sn during the process of simultaneous reduction of these metals by magnesium from solutions of their tetrachloride compounds. The studies were performed by the thermographic method at 820°. The magnesium-thermal reduction of $TiCl_4$ is an autocatalytic reaction occurring on the surface of the titanium sponge. Particles of titanium which separate from the sponge are set by the reducer. Therefore, the significance

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SAVIN, V. D., and GOLIKOV, V. V., Izvestiya Vysshikh Uchevnykh Zavedeniy, Tsvetnaya Metallurgiya, No 1, 1971, pp 60-64

of secondary reactions between $TiCl_4$ and metallic titanium is negligible. Thermodynamically, the course of these reactions is characterized by negative values of the change in isobaric potential. The bends found on the thermographic curves are analyzed. Analysis indicates that the excess thermal effect of the process can be attributed to formation of intermetallides. The heats of formation at 820° (in Kcal/g·atom) are as follows: 12.4 for Ti_3Sn, 22.5 for Ti_2Sn, 23.0 for Ti_5Sn_3, and 28.2 for Ti_6Sn_5. These values should be looked upon as approximate, due to the possibility of occurrence of unconsidered side processes.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR UDC 669.295.018.9(088.8)

GAMELKIN, B. S., GOLIKOV, V. V., OGURTSOV, S. V., NEPOMNYASHCHIY, I. V., SAMAROV, M. A., SAVIKIN, V. I., and RODNYY, M. I.

"Method of Producing Alloys of Titanium With Refractory Metals"

USSR Author's Certificate No 258598, Filed 28/01/67, Published 30/04/70 (Translated from Referativnyy Zhurnal-Metallurgiya, No 2, 1971, Abstract No 2 G197 P)

Translation: A method is suggested for producing alloys of Ti with refractory metals by metallothermic reduction of preliminarily prepared solutions of chlorides of the alloying metals to $TiCl_4$. To increase the homogeneity and quality of the alloys produced, the chloride solutions are heated to a temperature above the boiling point of the solution before the reduction process.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

1/2 022 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--FLATTENING EFFECT OF THYRISTORS TRIGGERED BY EXPONENTIALLY FALLING CURRENT CONTROL PULSES -U-

AUTHOR--GOLIKOV, V.YU.

COUNTRY OF INFO--USSR

SOURCE--IZV. VUZ RADIOELEKTRONIKA (USSR), VOL. 13, NO. 1, P. 88-9, JAN. 1970

DATE PUBLISHED-------70

SUBJECT AREAS--ELECTRONICS AND ELECTRICAL ENGR.

TOPIC TAGS--THYRISTOR, TRIGGER CIRCUIT, ELECTRIC CURRENT, PULSE AMPLITUDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3007/1730 STEP NO--UR/0452/70/013/001/0088/0089

CIRC ACCESSION NO--AP0136971

UNCLASSIFIED

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

2/2 022 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0136971

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. INVESTIGATES THE DEPENDENCE BETWEEN THE MINIMUM REQUIRED AMPLITUDE OF AN EXPONENTIALLY FALLING CONTROL CURRENT VERSUS TIME CONSTANT, AS A FUNCTION OF THE STEADY FLATTENING CURRENT AND THE SWITCHING TIME CONSTANT OF THYRISTORS. THE MINIMUM CALCULATED VALUES OF THE TRIGGERING CONTROL CURRENTS FOR SEVERAL THYRISTORS AGREE WITH THE MEASURED RESULTS TO WITHIN 20PERCENT. A SIMPLIFIED APPROXIMATE FORMULA FOR THE SMALLEST TRIGGERING CURRENTS IS ALSO GIVEN.

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USSR

UDC 669.046.5

ROGULEV, B. A., SHMATKO, G. A., PRONICHKIN, A. A., GOLIKOV, Ye. S., NOVOZHILOV, N. G., BARMOTIN, I. P., SMIRNOV, Yu. D., and CHERNOV, G. A.

"Electrical Steel Degassing by Argon Blowing in 100-ton Ladles"

Moscow, V sb. "Sovremennyye problemy kachestva stali" (MISiS) (Collection of Works. Modern Problems of Steel Quality) (Moscow Institute of Steel and Alloys), Izd-vo "Metallurgiya," No 61, 1970, pp 264-265

Translation of Abstract: Data are presented on the use of porous refractory inserts for argon blowing in 100-ton ladles. The results of an investigation on degassing of ShKh15 steel produced with refining by liquid synthetic slag are presented (hydrogen content at blowing decreases by 23% and that of oxygen by 55-65%). Attention is paid to increasing the refining effect of synthetic slag at argon blowing, resulting in a higher (up to 95%) degree of desulfurization; in a rise of metal-slag distribution coefficient (up to 164) with a reduction in slag consumption and production cost; and lowering of steel contamination. Plastic properties of the degassed metal are significantly higher than those of the nondegassed metal. 1 figure, 2 tables.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

GOLIKOVA, N. A.

Life Support Systems

SO: JPRS 53440
24 June 71

UDC 613.32:629.78.048

ARTIFICIAL MINERALIZATION OF WATER REGENERATED DURING SPACEFLIGHT

Article by M. I. Shikina, S. V. Chizhov, V. V. Krasnoshchekova, T. I. Aladinskaya, N. A. Golikova and Yu. F. Nikulin, Moscow, Kosmicheskaya biologiya i meditsina, Russian, Vol 5, No 2, 1971, pp 28-31, submitted for publication 27 February 1970

Abstract: Data published in the Soviet and foreign literature indicate a need for adding minerals to the water regenerated from human wastes during spaceflight. The paper presents experimental findings concerning the mineralization of regenerated water with solid-phase salts, powdered 2 CaO·SiO$_2$, and salt tablets. This method has certain advantages over current techniques, yielding drinking water with better organoleptic properties and superior physicochemical composition.

Since drinking water can be obtained during spaceflight by means of its regeneration from the products of man's vital functions and waste, hygienists are faced with the serious problem of ensuring that the regenerated water will have the required palatability and chemical composition.

It is known that in its composition regenerated water is close to distilled water and is characterized by the absence of mineral compounds present in natural drinking water which are physiologically important for the human body (Yu. Ye. Sinyak).

The biological role of most macro- and microelements present in water has been studied quite well (A. I. Voynar; R. D. Gabovich).

It is well known that food plays the principal role in supplying the body with mineral compounds. However, it has been established through research that the inadequate intake of individual mineral components with water can also exert a negative effect both on its organoleptic properties and on a number of body physiological functions (L. I. Shelukhin; Margaret). For example,

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR UDC 541.123+546.831'261:541.12.03

AVGUSTINIK, A. I., KLIMASHIN, G. M., GOLIKOVA, O. A. and SMIRNOV, G. V., Leningrad Technological Institute imeni Lensovet, Department of the Chemistry and Technology of High-Grade Ceramics

"The Effect of Nitrogen on Certain Properties of Zirconium Carbide in the Homogeneity Region"

Ivanovo, Izvestiya Vysshikh Uchebnykh Zavedeniy, Khimiya i Khimicheskaya Tekhnologiya, Vol XIII, No 10, 1970, pp 1,389-1,392

Abstract: It is known that existing methods of preparing zirconium carbide (and also the monocarbides of the transition metals of groups IV-VI) do not yield products of desired purity, owing to the presence of unbound carbon (up to 1.5-2.0%), nitrogen and oxygen; but the effects of these impurities have not been well studied.

The authors made a roentgenographic and metallographic study of the specific effect of the presence of nitrogen in zirconium carbide.

Data were obtained on the relationship between nitrogen content and the

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USSR

AVGUSTINIK, A. I., et al, Izvestiya Vysshikh Uchebnykh Zavedeniy, Khimiy i Khimicheskaya Tekhnologiya, Vol XIII, No 10, 1970, pp 1,389-1,392

following aspects of zirconium carbonitrides: (1) crystal lattice parameter; (2) crystal lattice parameter, with constant carbon content; (3) electrical conductivity; (4) thermal emf; (5) melting temperature; (6) microhardness; and (7) thermal conductivity. All data are illustrated graphically.

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USSR UDC 581.1.03[577.3+539.16.04

GOLIKOVA, O. P., and GRODZINSKIY, Institute of Plant Physiology, Academy of Sciences USSR, Kiev

"Injury to the DNA Matrix and Radiation Lesion of Plants"

Moscow, Doklady Akademii Nauk SSSR, No 5, 1971, pp 1,207-1,210

Abstract: The results of experiments involving the irradiation of pea shoots (5 to 25 kr) suggests that such irradiation impairs the transmission of genetic information at the level of transcription. The impairment consists both of direct injury to the DNA matrix and of rupture of the DNA-protein bond. The processes associated with gene repression and derepression are more sensitive than the DNA matrix proper. After irradiation, at 5 kr, the percent of hybridization of RNA from nonirradiated roots on a DNA matrix from both irradiated and nonirradiated roots is identical, showing that this dose does not cause extensive damage to the coding sequences and the the RNA synthesized on a nonirradiated DNA matrix finds conplementary portions there. When RNA isolated from irradiated roots is used, its capacity for hybridization is lower than in the case of nonirradiated RNA, although the percent of hybridization on DNA from irradiated and nonirradiated roots is the same. Following irradiation at 25 kr, the percent of hydribization of RNA from irradiated shoots on DNA from nonirradiated

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

GOLIKOVA, O. P., and GRODZINSKIY, Doklady Akademii Nauk SSSR, No 5, 1971, pp 1,207-1,210

roots is higher than that obtained with DNA from irradiated roots. But when irradiated RNA is hybridized, the percent of its hybridization on irradiated DNA is higher than on nonirradiated DNA. This shows that irradiation at 25 kr injuries the DNA matrix directly. Consequently, the newly synthesized RNA on this matrix differs from the RNA synthesized on nonirradiated DNA.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

UDC 681.142.644.3

ADERIKHIN, V. P., GOLIKOVA, T. G., KUZ'MICHEV, V. I., LANTSMAN, B. I., LESKOV, V. G., RUDAKOV, A. N., and SOBOLEVA, E. I.

"A Device for Calculating a Partial Derivative"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 12, Apr 72, Author's Certificate No 334574, Division G, filed 22 Dec 70, published 30 Mar 72, p 184

Translation: This Author's Certificate introduces a device for calculating a partial derivative. The device contains a servo system for the independent variable and a servo system for the differentiable function which are based on integrators. The inputs of the integrators are connected through corresponding switches to the outputs of the corresponding scalers. The device also contains a comparator with a reference voltage source connected to one of its inputs. As a distinguishing feature of the patent, computing precision is improved by adding a delay line, logic devices, a memory unit, and an additional switch. The output of the scaler in the independent-variable servo system is connected to the first input of the logic device and to the second input of the comparator. The output of the comparator is connected to the controlling input of the additional switch. This switch

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USSR

ADERIKHIN, V. P., et al., Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 12, Apr 72, Author's Certificate No 334574, Division G, filed 22 Dec 70, published 30 Mar 72, p 184

connects the output of the scaler in the function servo system to the second input of the logic device, and through a delay line to the controlling inputs of the servo system switches. The memory unit is connected to the output of the logic device.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

1/2 020 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--A CHROMIUM CATALYST -U-

AUTHOR-(04)-GUREVICH, V.R., GOLIKOVA, V.I., ARUTYUNOVA, K.M., DALIN, M.A.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 186,390
REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970, 47(9)
DATE PUBLISHED--03MAR70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHROMIUM, CHEMICAL PATENT, CATALYST, CATALYTIC POLYMERIZATION, ALKENE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3007/0847 STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0136281
UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

2/2 020 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AA0136281

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A CR CATALYST, HAVING A HIGHLY DEVELOPED SURFACE, FOR POLYMN. OF OLEFINS, IS PREPD. BY SATG. SILICA GEL WITH A SOLN. OF CR ANHYDRIDE IN AN ORG. LIQ., E.G. IN ACETONE.

FACILITY: VSESOYUZNYY NAUCHNO-ISSLEDOVATEL'SKIY INSTITUT PO POLUCHENIYU I PERERABOTKE NIZKOMOLEKULYARNYKH OLEFINOV S OPYTNYM ZAVODOM.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

GOLIKOVA, V.V.

UDC 620.181.2:669.15.194

ON THE DEPENDENCE OF MARTENSITE MORPHOLOGY ON THE TEMPERATURE OF THE ISOTHERMAL TRANSFORMATION OF Fe--24Ni--3Mn ALLOY

V. V. Golikova and V. I. Izotov, Institute of Metallography and Physics of Metals, Central Scientific Research Institute of Ferrous Metallurgy imeni I. P. Bardin, submitted to press 14 June 1972

pages 1323-1326

As is known [1], the diagram of isothermal transformation of austenite in the martensite region for a Fe--24Ni--3Mn alloy has a C-shaped form. In reference [2], devoted to an investigation of the structure of martensite in this alloy, the martensite in the specimen was accumulated by warming from -196°C to room temperature, passing through the entire diagram indicated, and no values were assigned to the possible change of the structure with the temperature, working from the premise that its type is basically determined by the kinetics of the transformation.

In this work a metallographic investigation of the morphological features of martensite formed in an alloy of Fe--23.85% Ni--3.0% Mn--0.034% C after hardening at 1150°C for four hours in water and subsequent cooling in isothermal conditions at various temperatures was performed.

After transformation at -40° (in the upper region of the C-shaped curve), martensite of two morphological varieties is ascertained: rack-type, in the form of colonies, consisting of fragments with irregular boundaries (Figure 1, a) and stringer-martensite according to the terminology of reference [3]) in the form of oblique series of crystals, divided by an interlayer of austenite (Figure 1, b). It is noted that after brief soakings (up to 30 minutes) the colonies of rack-type martensite are grouped primarily at the boundaries of the austenite grains, which, apparently, are the place of their origin.

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After soaking at -(60--70)°, the fraction of martensite in the form of oblique series (rows) increases, and after soaking at -(90--100)°, in the region of the maximum of the C-shaped curve it becomes predominating (Figure 1,c). The origin of crystals at the beginning of transformation also begins primarily from the boundaries of the grains of austenite.

At a temperature of -196° (in the lower region of the C-shaped curve) in the structure of the alloy the fraction of crystals in the form of oblique rows decreases, the crystals become larger, as if individual fragments were joining into one whole fragment (Figure 1,d). Morphologically, the large crystals in this alloy are similar to the partially twinned crystals of athermic martensite of Fe--Ni--C and Fe--C alloys [4].

Metallographic investigations demonstrated that together with the obtuse-angled contacts of the crystals, occurring in the entire temperature range of the transformation, in the structure of a Fe--24 Ni--3 Mn alloy after cooling at -196°, acute-angled contacts and even "lightning bolts", characteristic for athermic martensite, are observed (Figure 1,e). Such a change in the morphology of martensite as a function of the transformation temperature of the alloy of one and the same composition is apparently associated with the temperature dependence of such properties of austenite as the energy of packing defects, magnetic properties, and, especially, the stresses of its flow during deformation. As was demonstrated in reference [5], for the majority of iron alloys the dependence of the morphology of martensite upon the magnitude of the yield point of austenite at the transformation temperature is observed. In this case, if the yield point at M_s is less than a value of 20--25 kilograms per square millimeter, the martensite has a rack-like morphology, and if it is greater, a lamellar morphology. According to data in reference [6], the yield point of alloy N2C5, close in composition to the alloy investigated, at -196° ~ 25 amounts to ~ 15 kilograms per square millimeter, and at -50° kilograms per square millimeter. Consequently, we may expect changes in the morphology of martensite as the alloy cools, analogous to the way this was observed by us.

In the entire temperature range of the transformation, at the initial stages the martensite crystals are grouped in a few grains of austenite, which, probably, is caused by the autocatalytic nature of the process. In a case of rack-type martensite the autocatalytic nature of the transformation is manifested in the packet method of the grouping of crystals, when the crystals are arranged in sequence one to the other. For Fe--Ni alloys with a $M_s \approx 200$--400°, the transformation into rack-type martensite occurs at such a high speed that we can even speak of its "explosive" nature [7]. For stringer-martensite, autocatalyticity is manifested not

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

UDC:629.78.002.3

USSR

SHCHUKIN, V.K., DRESVYANNIKOV, F.N., BAYGALIYEV, B.E. and GOLIN, N.P.

"Experimental Investigation of Degradation Heat of Polymethylmethacrylate as Function of Temperature and Pressure"

Kazan', Tr. Kazan. Aviats. In-ta (Transactions of Kazan' Aviation Institute), 1972, vyp 151, pp 30-35 (from Referativnyy Zhurnal-Raketostroyeniye, 1973, Abstract No 4.41.210)

Translation: Degradation heat of N-polymethylmethacrylate in the temperature range of 777-1100°K and pressures 0.1-7 ton/m^2 was investigated experimentally. It was established that the degradation heat decreases with the increase of pressure. The experimental data were reduced by the least square method and approximated by the equation H=f(P, T). 3 illustrations. 3 references. Author's resume.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

ZDRODOVSKIY, P. F. and GOLINEVICH, Ye. M., Ucheniye o Rikketsiyakh i Rikketsiozakh, 3rd ed, 1972, 496 pp

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

UDC 629.78.015.4

GOL'NIK, E. R.

"Considering Bimoment Factors in Thin-Wall Rod-Shells with Oblique Support"

Sb. tr. Voronezh. politekhn. in-ta (Collection of Works of Voronezh Polytechnic Institute), 1970, vyp. 2, pp 181-186 (from RZh-Raketostroyeniya otdel'nyy vypusk, No 12, Dec 72, Abstract No 12.41.176)

Translation: In some cases it is necessary to know the force factors in oblique cross sections of structural elements, including thin-wall rod-shells. The bimoment concept in an oblique cross section and the statement of bimoment boundary conditions in the case of oblique hinging of statistically loaded thin-wall bistructures are generalized.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR UDC 621.165.233.2.001.5

GOLINKIN, S. L.

" On the Reliability of Support Bearings of Steam Turbines"

Energeticheskiy Mashinostroyeniye Resp. Mezhved. Temat. Nauch.-Tekhn. Sb (Power Machine Construction. Republic Interdepartmental Thematic Scientific-Technological Collection of Works), 1971, 11th Edition, pp 105-115 (from Referativnyy Zhurnal - Turbostroyeniye, No. 9, Sep 71, Abstract No. 9.49.40

Translation: Questions connected with improving the reliability of support bearings are considered. Reasons are given for the discrepancy between the loads bearings will carry in stand tests and the loads they will support in prolonged use. It is noted that one of the primary ways of improving reliability is improving bearing design. Data on failure statistics and operating factors for various types of bearings are given. It is shown on the basis of utilization experience that of all types of bearings those with equalizing apparatus on oscillating supports achieve the most uniform distribution of axial thrust among blocks. These are finding ever greater application in steam and gas turbine designs. One illustration, three tables, ten bibliographic entries.

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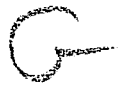
"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

1/2 029 UNCLASSIFIED PROCESSING DATE--16OCT70
TITLE--GLOW FROM BEHIND A SHOCK FRONT IN STELLAR ATMOSPHERES -U-

AUTHOR--GOLINKO, V.I.



COUNTRY OF INFO--USSR

SOURCE--ASTRONMICHESKII ZHURNAL, VOL. 47, NO 1, 1970, P. 145-148

DATE PUBLISHED--------70

SUBJECT AREAS--ASTRONOMY,ASTROPHYSICS

TOPIC TAGS--SHOCK WAVE, TEMPERATURE GRADIENT, SPECTRUM, ATMOSPHERE, STAR

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1994/1735 STEP NO--UR/0033/70/047/001/0145/0148

CIRC ACCESSION NO--AP0115564

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

2/2 029 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0115564

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DISCUSSION OF THE MOTION OF A MODERATELY STRONG SHOCK WAVE IN THE UPPER LAYERS OF A STELLAR ATMOSPHERE, NEGLECTING HEATING OF THE MEDIUM IN FRONT OF THE SHOCK WAVE. AN APPROXIMATE FORMULA DESCRIBING THE TEMPERATURE GRADIENT BEHIND THE SHOCK FRONT IS DERIVED. THE FORMULA IS SUITABLE FOR QUANTITATIVE INTERPRETATION OF THE EMISSION SPECTRA OF STARS WHOSE ATMOSPHERES ARE TRAVERSED BY SHOCK WAVES. IT CAN BE ALSO USED FOR CALCULATING WITH A HIGH DEGREE OF ACCURACY THE STRUCTURE OF THE SHOCK WAVE.

FACILITY: ODESSKIA ASTRONOMICHESKIA OBSERVATORIIA, FACILITY: ODESSA, UKRAINIAN SSR .

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

GOLISHEV Yu. L.

Acc. Nr: AA0108689 Ref. Code: UR 0482

Soviet Inventions Illustrated, Section I Chemical, Derwent, 3/70

244361 WATER SEAL FOR RISERS IN WALKING FURNACEBEAM is a water box (3) with a hole for the risers, each of which carries a box fitted on top with a scale guard (4). A trough (6) in the fixed water box is coupled to a system of troughs (7) used for rinsing purposes. Scale from the water seal falls on to the guard on the moving box and so off into the troughs. Scale water from these is passed out. The scale lumps build up in the hearth hole which is framed with metal plates (2) so that the lumps are crushed under the action of the riser tubes (1).

12.4.68 as 1233643/22-1. GOLISHEV.YU.L., E.A.LEVITAN. B.B.STRUCHENEVSKII. STAL'PROEKT INST. (10.10.69) Bul 18/28.5.69. Class 18c. Int.Cl. C 21 d.

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REEL/FRAME
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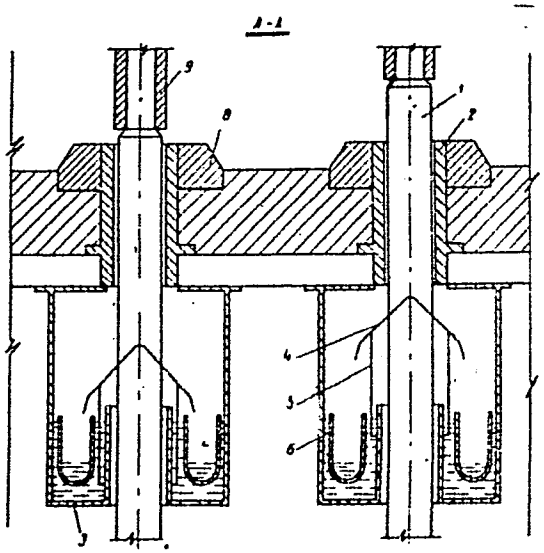
Acc. Nr.: AA0108689



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AA0108689

AUTHORS: Levitan, E. A.; Golishev, Yu. L.; Struchenevskiy, B. B.

Gosudarstvennyy Soyuznyy Institut "Stal'proyekt"

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Acc. Nr: GOLISHEV Yu.L. Ref. Code:
AA0108684 Abstracting Service: 3-70 UR 0482
Soviet Inventions Illustrated, Section I Chemical, Derwent,

244363 WALKING BEAM FURNACE with load-bearing beam (1) fitted with heat resistant steel mounts (2) spaced by more than a mount length so that when the billets move, their points of contact with the mounts will lie between mounts after each step travelled by the walking beam. This ensures heating of the colder parts of the metal slab, even heating along the slab length and general improvement in structure as a result of this.

11.3.68 as 1223798/22-1. GOLISHEV.YU.L., E.A.LEVITAN, E.B. STRUCHENEVSKII. STAL'PROEKT INST. (10.10.69) Bul 18/ 28.5.69. Class 18c, 31a. Int.Cl. C 21 d, F 21 b.

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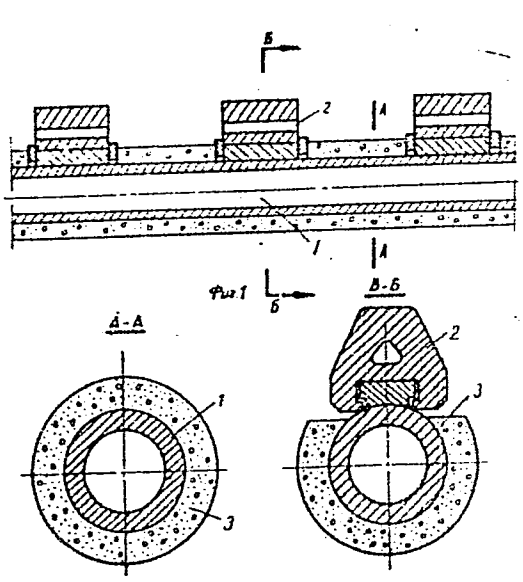

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AA0108684

AUTHORS: Golishev, Yu. L.; Levitan, E. A.; Struchenevskiy, B. B.

Gosudarstvennyy Soyuznyy Institut "Stal'proyekt"

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1/2 027 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--INTERMOLECULAR INTERACTION IN SOLUTIONS OF WATER IN ACETONITRILE IN THE PRESENCE OF SALTS -U-

AUTHOR-(02)-GOLISHNIKOVA, L.YA., KARYAKIN, A.V.

COUNTRY OF INFO--USSR

SOURCE--ZH. FIZ. KHIM. 1970, 44(4), 997-1002

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--MOLECULAR INTERACTION, AQUEOUS SOLUTION, ACETONITRILE, IR SPECTRUM, IODIDE, PERCHLORATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/1976 STEP NO--UR/0057/70/044/004/0997/1002

CIRC ACCESSION NO--AP0132237

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2/2 027 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0132237

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE INTERMOL. INTERACTION OF H SUB2 O WITH MECN WAS STUDIED BY MEANS OF IR SPECTROSCOPY IN THE ABSENCE AND IN THE PRESENCE OF SALTS. IN THE PURE H SUB2 O-MECN MIXTS. (WITHOUT THE SALTS) AT H SUB2 O 0.01-0.7 MOLE-L., THE SPECTRUM HAS 2 ABSORPTION BANDS, AT 3540 AND 3630 CM PRIME NEGATIVE1. ABOVE 0.7 MOLE-L., THESE BANDS MERGE INTO 1 LARGE BAND AND AT STILL GREATER CONCNS. THEY BECOME IDENTICAL WITH THE ABSORPTION BAND OF THE LIQ. H SUB2 O. AT H SUB2 O CONCN. DECREASE FROM 0.7 MOLE-L. TO 0 THE INTENSITY OF THESE BANDS DECREASED ALMOST TO COMPLETE DISAPPEARANCE. THE EFFECTS OF VARIOUS IONS ON THE POSITION AND INTENSITY OF THE BANDS IN THE H SUB2 O-MECN SYSTEM WAS STUDIED BY INTRODUCTION OF NA, LI, CA, MG, AND (C SUB4 H SUB9) SUB4 N PRIME POSITIVE IODIDES AND LICLO SUB4. THE INTRODUCTION OF ANY OF THESE SALTS RESULTED IN THE APPEARANCE OF 2 NEW BANDS, THE WAVELENGTHS OF WHICH WERE THE SHORTEST FOR THE MG AND THE LONGEST FOR THE (C SUB4 H SUB9) SUB4 NI. THE ASSOCN. H SUB2 O-MECN DECREASES WITH THE 1ST ADDN. AND PROGRESSIVE INCREASE OF THE SALT CONCN. THE NEW BANDS ARE DUE TO THE SALT-H SUB2 O BONDS. FACILITY: MOSK. KHIM.-TEKHNOL. INST. IM. MENDELEEVA, MOSCOW, USSR.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

1/2 006 UNCLASSIFIED PROCESSING DATE--02OCT70

TITLE--DETERMINATION OF THE RADIATING POWER OF SULFUR DIOXIDE IN WASTE HEAT BOILERS -U-

AUTHOR-(02)-GOLITSYN, A.V., BERLIN, Z.L.

COUNTRY OF INFO--USSR

SOURCE--KHIM. NEFT. MASHINOSTR. 1970, (3), 42

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY, MECH., IND., CIVIL AND MARINE ENGR

TOPIC TAGS--STEAM BOILER, SULFUR OXIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1990/1305 STEP NO--UR/0314/70/000/003/0042/0042

CIRC ACCESSION NO--AP0109389

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

2/2 006 UNCLASSIFIED PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0109389

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT OF SO SUB2 GASES ON THE RADIANT HEAT TRANSFER IN WASTE HEAT BOILERS WAS STUDIED IN A SYSTEM MODELED AFTER U.C. HOTTEL AND C. H. MANGELSDORF (1937). GASES CONTG 10-90PERCENT SO SUB2 WERE COMBUSTED AT 400-1000DEGREES AT PS EQUAL 0.029-0.150 (WHERE PS IS THE PRODUCT OF SO SUB2 PARTIAL PRESSURE (B) AND THE RAY PATH LENGTH (S) WHICH IS 0.16 M AND THE HEAT FLOW (Q) MEASURED. EXPTL. DETD. Q WERE 16-38PERCENT LOWER THAN THEORETICAL VALUES; THE DIFFERENCES WERE LARGEST AT THE HIGH PS VALUES.

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GOLITSYN, G. I.; RUDNEVSKIY, N. K.

"Study of the Temperature of Electrodes Made of Simple Alloys as a Function of Their Composition during the Action of an AC Arc"

Minsk, Zhurnal Prikladnoy Spektroskopii; March, 1971; pp 359-63

ABSTRACT: A study was made of the temperature, at the heated surfaces, of electrodes made of Cu-Ni, Cu-Mn, Cu-Zn, and Cd-Zn alloys as a function of their composition during the action of an AC arc discharge (in a state of stationary thermal equilibrium). Using the data obtained, the authors determined the temperature distribution along the axis of the electrodes studied near the region affected by the arc discharge. By means of distribution curves and data on the melting points of the alloys an evaluation was made of the size of the melting areas at the heated surfaces of the electrodes as a function of their composition. It was established that at electrodes with a greatly varying thermal conductivity heat builds up in different ways near their heated surfaces; the smaller the thermal conductivity, the greater the depth of the high-temperature region. As a consequence of this, enlargement of the melting area leads

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GOLITSYN, G. I., et al, Zhurnal Prikladnoy Spektroskopii, March, 1971, pp 359-63

to great damage to the electrodes affected by the discharge. The results obtained make it possible to give a qualitative explanation of certain well-known peculiarities in the behavior of the materials of simple alloys in an AC arc discharge and, in a number of cases, to establish the decisive role of thermal conductivity in the erosion of alloys.

The article includes 5 illustrations. There are 11 bibliographic references.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

Acc. Nr: A70048617 Abstracting Service: INTERNAT. AEROSPACE ABST. Ref. Code: 5-70 UR0020

A70-24269 # Similarity theory for large-scale motions of planetary atmospheres (Teoriia podobiia dlia krupnomasshtabnykh dvizhenii planetarnykh atmosfer). G. S. Golitsyn (Akademiia Nauk SSSR, Institut Fiziki Atmosfery, Moscow, USSR). *Akademiia Nauk SSSR, Doklady*, vol. 190, Jan. 11, 1970, p. 323-326. 8 refs. In Russian.

Attempt to construct a closed theory of atmospheric general circulation, using methods of similarity and dimensionality. It is shown for the case of a nonrotating planet that the governing parameters in the equations of atmospheric dynamics can be expressed in the form of one dimensionless combination. It is then found that a number of global characteristics of planetary atmospheric circulations are self-similar with respect to mass, so that from the remaining parameters combinations with dimensionalities of velocity, time, and energy can be formed. The angular velocity of rotation of the planet is then incorporated into the number of governing parameters. Certain quantitative estimates of the circulation intensity of the atmospheres of Mars and Venus are obtained. A.B.K.

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Acc. Nr.: AP0042362

Ref. Code: UR0263

JPRS 50162

Heat Propagation in Rarefied and Inhomogeneous Atmospheres

(Abstract: "Heat Propagation in Rarefield and Inhomogeneous Atmospheres," by G. S. Golitsyn and N. N. Romanova, Institute of Physics of the Atmosphere; Moscow, Geomagnetizm i Aeronomiya, Vol X, No 1, 1970, pp 107-113)

A study was made of the one-dimensional problem of heat propagation in a rarefied atmosphere with exponential and power-law density distributions. The behavior of Green's function is examined and a number of boundary-value problems and problems with initial conditions are examined. The investigated problems are of significance for the upper atmosphere if the horizontal dimensions of the region of the atmosphere heated by some source are great in comparison with altitude above the earth so that the lateral escape of heat can be neglected, that is, if a one-dimensional formulation of the problem in which all the parameters are dependent only on altitude z is admissible. For the earth's atmosphere this approach is admissible beginning at altitudes $\sim$ 120 km, where diffusion stratification begins and where the role of molecular transfer processes begins to predominate in comparison with turbulent transfer. The altitude $z = z_0 =$ 200 km can be used as a reference level. Above this level the temperature varies little with altitude and scale height is $\sim$50 km. In this case

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the thermal diffusivity coefficient λ_0 is $\sim 3 \cdot 10^9$ cm^2/sec. The time scale corresponding to dimensionless time $\tau = 1$ in the exponential model in this case is $\tau = H^2/\lambda_0 = 8 \cdot 10^3$ sec = 2 hours. Thus, if some heat release occurs at the 200-km level, during a time of about 2 hours the higher layers will adapt to the new temperature regime. However, if the source is at higher levels the assimilation process will transpire still more rapidly. In the case of a power-law density decrease with altitude, the heat assimilation time will be greater. The analysis shows that in a quite rarefied atmosphere with a density decreasing with altitude the regime of the upper layers of the atmosphere, subjected to any heat source, will tend to an isothermal source, as is actually observed in nature.

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USSR

UDC 621.375.4

GOLITSYN, M. G., LAZAREV, Yu. V.

"Amplifier Device"

USSR Author's Certificate No 298065, Filed 11/03/68, Published 5/05/71, (Translated from Referativnyy Zhurnal Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 11, 1971, Abstract No 11 A124 P).

Translation: An amplifier device is suggested for an automatic control circuit, containing a transformer, stabilitrons, an RC circuit, and thyristors. In order to increase the reliability of the device, a series connected stabilitron and resistor are connected in parallel to each of the secondary windings of the transformer, and the stabilitrons are connected through resistors to the inputs of the amplifier device. 1 Figure.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

GOLITSYNA, Ye. K.

JPRS 55570
29 Mar 72

UDC: 362.11.007.4:658.351

INVESTIGATION OF WORK SCHEDULE OF HOSPITAL ATTENDANTS IN CLINICAL DEPARTMENTS OF HOSPITALS (BASED ON DATA FOR THE MUNICIPAL CLINICAL HOSPITAL IMENI S.P. BOTKIN, MOSCOW)

[Article by L.S. Slushenko, Z.V. Prokhorzhenskaya, Ye.K. Golitsyna, T.I. Yevgra-fova, Moscow, Sovetskoye Zdravookhraneniye, Russian, No 2, 1972, submitted 12 August 1971, pp 31-34]

Researchers are devoting more and more attention to organization of work of medical personnel. Studies are made of the work of doctors and nurses in polyclinics and hospitals. Yet we failed to encounter data in the literature dealing with analysis of the work done by male and female hospital attendants. The hiring and training of such workers as well as organization of their work are urgent problems in modern public health.

At the request of the public health commission of the Moscow Council of Workers' Deputies, in July and August 1970 we made a study of the training of female hospital attendants, their availability in a clinical institution, their activities, schedule of work time, existing system of organizing their work, for the purpose of rationalizing it. This investigation was conducted using a method developed and used in the department of scientific organization of labor of the All-Union Scientific Research Institute of Social Hygiene and Public Health Organization imeni N.A. Semashko as it applies to the activities and tasks set before us. Specially trained nurses designated by the administration of the Hospital imeni S.P. Botkin clocked the work done by the female attendants. The work of these attendants at each work place was studied around the clock for six days by the method of photographing work time and clocking. The material was processed statistically using certain standard methods. Two therapeutic, two surgical, one neurological, and one neurosurgical department were selected for the study. We investigated the work of 19 attendants [female] including seven in the therapeutic departments, five in the surgical ones, three in the neurological, and four in the neurosurgical department.

The attendants studied ranged in age from 37 to 75 years, over 50 percent of them were 50-60 years of age and about 25 percent over 60 years old.

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UDC 624.196.1(211).001.57

LIMANOV, YU. A., Professor, D-r of Technical Sciences, GEVIRTS, G. YA., and GOLITSYNSKIY, D. M., Candidates of Technical Sciences

"Model Studies of Ground Pressures on Underground Hydraulic Structures in Permafrost Areas"

Moscow, Gidrotekhnicheskoye Stroitel'stvo, No 10, 1971, pp 18-22

Abstract: The technique of modeling the permafrost rocks and their thawing process occurring as a result of operation of hydraulic structures is considered. The nature of the ground pressure and factors affecting the load magnitude from ground pressure during thawing of rocks are considered on the basis of model studies, using the equivalent materials. Similarity conditions for selecting equivalent materials are established. The results of the study on thawing of permafrost rocks around hydraulic tunnels attest the appearance and development, in that period, of deformations and disintegration of a significant rock stratum above the tunnel. Certain regularities related to sagging of the earth surface and sagging of separate rock layers within the massif, as well as the qualitative results of current phenomena are established, which make it possible to form an opinion, with certain approximation, on the qualitative side of these phenomena. Recommendations on modeling technique for permafrost rocks and on methods of determining the load magnitude from

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LIMANOV, YU. A., et al., Gidrotekhnicheskoye Stroitel'stvo, No 10, 1971, pp 18-22

ground pressure are presented. Load variation with ground pressure on tunnel arch, in relation to the depth of thawing zone, tunnel span and block disintegration degree in permafrost fissured grounds, measured on various models are plotted in graphs.

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AQ 1-0972

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Khristoforov, B. D. Shock wave parameters for explosion of a spherical charge in porous NaCl. FGiV, no. 4, 1971, 594-599.

Laboratory experiments were conducted to determine the parameters of shock waves in a solid at various porosity values within the range $1 \leq \bar{R} \leq 9$, where $\bar{R} = R/R_0$ is the ratio of the distance R between the point of measurement and the charge to the charge radius R_0. The effect of rock porosity near an explosion on the explosion parameters in the medium was considered. NaCl powder with a grain size of about 0.3 mm was used to simulate the properties of natural rock. The powder was pressed to densities of $\rho_\infty = 2.12$, 1.87, and 1.72 g/cm^3, and the single-crystal density was $\rho_0 = 2.16$ g/cm^3. The porosity of the pressed specimens, defined by the ratio $\eta = 1 - \rho_\infty/\rho_0$, was 2, 13.5, and 20%. The shock-wave parameters were measured by an electromagnetic method proposed by Ye. K. Zavoyskiy. Results show that the porosity of the medium substantially affects the energy dissipation and the shock-wave parameters in the near explosion zone.

Khristoforov, B. D., Ye. E. Goller, A. Ya. Sidorin, and L. D. Livash. Manganin sensor for measuring shock wave pressure in solids. FGiV, no. 4, 1971, 613-615.

A manganin sensor and circuitry are described for recording plane shock wave pressure in a solid within the range 1 to 10^2 kbar. The plane shock wave in the specimen is actuated by a detonation lens (1, Fig. 1) and explosive charge (2). Variation of the charge density and the introduction

GOLLER, Ye. E.

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USSR

NEVZOROVA, E. G., GOL'MYAKOV, B. P., RADOVSKIY, I. Z., GEL'D, P. V.

"Magnetic Susceptibility of Nickel and Iron at High Temperatures"

Moscow, Izvestiya Vysshikh Uchevnykh Zavedeniy, Chernaya Metallurgiya, No 9, 1972, pp 108-109.

Abstract: The temperature dependence of magnetic susceptibility of nickel and iron was studied by the Faraday method using a pendulum balance and a magnetic field of up to 12 koe. Electrolytic nickel (99.99% Ni) and iron of three types, carbonyl, iron type V-3, the same iron following zone purification and the same iron twice purified in an atmosphere of helium, were used. Below the melting point, the function χ^{-1} (T) is almost linear in nature. No significant change in magnetic susceptibility was found at the melting point of nickel. The characteristics of solid and liquid metal produced by calculation with the Curie-Weiss formulas are presented. The magnetic susceptibility of iron changes in a complex manner with temperature, and a graph is presented. Susceptibility changes according to the same curves during heating and during cooling. A slight anomaly in the temperature dependence of magnetic susceptibility of liquid iron is noted in all specimens in the 1,620-1,700°C temperature range.

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UDC 549.76

GOLOBACHEV, V. P., KUZ'MIN, E. A., KHARITONOV, Yu. A., and BELOV, N. V., Academician, Gor'kiy Research Physicotechnical Institute at Gor'kiy State University imeni N. I. Lobachevskiy, Institute of Crystallography of the Academy of Sciences USSR, Moscow

"Crystalline Structure of Potassium Tetrachromate $K_2Cr_4O_{13}$"

Moscow, Doklady Akademii Nauk SSSR, Vol. 192, No. 6, 21 Jun 70, pp 1272-1274

Abstract: $K_2Cr_4O_{13}$ crystals were grown from an aqueous solution, and two samples $0.1 \times 0.2 \times 0.2$ mm^3 and $0.2 \times 0.2 \times 0.4$ mm^3 covered with a protective celluloid film gave a good diffraction pattern. The parameters of an elementary cell were: $a = 8.71$, $b = 7.75$, and $c = 9.37$ Å; $\beta = 93°$. The coordinates of the basal atoms, 55 independent position parameters, are given in a table. The temperature correction for all atoms was 1.3 Å^{-2}.

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GOLOBACHEV, V. P., et al, Doklady Akademii Nauk SSSR, Vol 192, No 6, 21 Jun 70, pp 1272-1274

$K_2Cr_4O_{13}$. Coordinates of Basal Atoms

Атом	x/a	y/b	z/c	Атом	x/a	y/b	z/c
Cr_1	0,441	0,439	0,335	O_5	0,959	0,562	0,332
Cr_2	0,434	0,105	0,102	O_6	0,263	0,568	0,323
Cr_3	0,759	0,930	0,829	O_7	0,070	0,244	0,268
Cr_4	0,095	0,429	0,383	O_8	0,119	0,633	0,050
K_1	0,796	0,405	0,104	O_9	0,447	0,349	0,166
K_2	0,079	0,892	0,246	O_{10}	0,448	0,311	0,466
O_1	0,906	0,064	0,802	O_{11}	0,425	0,970	0,238
O_2	0,588	0,069	0,001	O_{12}	0,750	0,128	0,309
O_3	0,282	0,103	0,997	O_{13}	0,767	0,779	0,093
O_4	0,578	0,563	0,345				

Six bridge distances were identified among the Cr-O distances:

$$Cr_4 - O_6 = 1,91, \quad Cr_1 - O_6 = 1,83, \quad Cr_1 - O_9 = 1,75,$$
$$Cr_2 - O_9 = 1,96, \quad Cr_2 - O_2 = 1,70, \quad Cr_3 - O_2 = 1,84 \text{ Å}.$$

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR UDC 616.155.1-073.155:612.014.426

GOLOBOKIN, N. K., and KROTOV, A. V., All-Union Scientific Research Instrument of Medical Instrumentation

"The Effect of a Brief Exposure to a Magnetic Field on the Blood Sedimentation Rate in Health and Disease"

Kiev, Vrachebnoye Delo, No 6, 1973, pp 12-14

Abstract: Duplicate blood samples collected in identical capillary tubes from 44 patients with disturbed cerebral circulation and hypertension (group I), 22 patients with hepatitis and cholecystitis (group II), and 36 healthy individuals (group III) were placed in two separate containers with screens shielding the samples from random, external magnetic fields. In one container, an alternating demagnetizing magnetic field (DMF) of 200-400 oersted and 50 c/sec was generated for 10-15 sec. Blood sedimentation readings taken 1 hr later revealed a decelerated sedimentation rate in 93% of group I samples, 64% of group II samples, and 27% of group III samples. The difference ranged from 1 to over 10 mm/hr or 13-100% as compared with the controls. The average deceleration was 2.7 mm/hr in group I, 1.14 cm/hr in group II, and 0.19 mm/hr in group III. It is concluded that after in vitro exposure to the DMF, the difference in the

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GOLOBOKIN, N. K., and KROTOV, A. V., Vrachebnoye Delo, No 6, 1973, pp 12-14

deceleration of the sedimentation rate of blood from patients and from healthy individuals is signficant and may be of diagnostic value.

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STPS 593 OS
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XVI-11. HETEROEPITAXY OF GERMANIUM ON GALLIUM ARSENIDE WITH VACUUM CONDENSATION

[Article by A. L. Aseyev, O. P. Vasin, Yu. N. Goloborov, Ye. A. Krivorotov, S. I. Stenin, V. K. Shumskiy, Novosibirsk, Ill Simposium po Tverdotelnoy Elektronike i Poluprovodnikovym Kristallov i Plenkam, Russian, 12-17 June 1972, p 230]

Germanium films on gallium arsenide substrates were manufactured by condensation in a vacuum of 10^{-7}-10^{-8} torr. The deposition rate was 10-20 Å/min, the substrate temperature varied in the range of 320-600° C and the substrate orientation was (110). The surface structure of the films and the substrate was estimated by the method of electron diffraction on reflection, and the defectiveness of the germanium layers directly adjacent to the film-substrate junction was studied by a transmission electron microscope.

With an increase in the substrate temperature (T_s), the structure is transformed from polycrystalline (T_s = 320-460° C) to monocrystalline (T_s > 460° C). The basic type of defect in the heteroepitaxial germanium films was the packing defects located in the inclined {111} planes and the microtwins both with inclined and normal twinning planes {111}. The most perfect heteroepitaxy was obtained in the temperature range of T_s = 540-560° C where the indicated defects are absent. The electron diffraction and electrophysical method demonstrated that up to a temperature of 600° C, no noticeable dissociation of the gallium arsenide takes place. The variations in the defectiveness of the boundary layers of Ge (increase twinning and the formation of packing defects at T_s = 460-520 and 580-600° C) agree with the variations in the electrophysical properties of the heterojunctions.

The mechanisms of the formation of the structure of the heterojunctions of germanium and gallium arsenide during vacuum deposition are analyzed in this paper.

GO LO.BOKOV, Yu. N

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR UDC 533.6.01

GOLOBORODKO, I. L., and OSTOSLAVSKIY, I. V.

"On one of Generalizations of the Thin Profile Theory"

Kazan', Izvestiya Vysshikh Uchebnykh Zavedeniy, Aviatsionnaya Tekhnika, No 2, 1973, pp 19-23

Abstract: An account is given of a method for determining the aerodynamic characteristics of a slithly bent thin profile at arbitrary position of the point of the flow descent θ_{fd}. The problem is solved on the basis of the thin profile theory. Analytical expressions, derived for determining the profile lift coefficient c_y and the pitching-moment coefficient c_m, show that c_y depends on the angle of attack α and the position of θ_{fd} and that c_m depends on α and c_y. The derived results are analyzed by reference to diagrams showing $c_y(\alpha)$, the $c_m(\alpha)$, and the $\theta_{fd}(c_m)$ dependences. By the suggested generalization of the thin profile theory for an arbitrary position of θ_{fd}, the aerodynamic properties of a thin profile can be investigated rather completely by elementary means. Four figures, twenty one formulas, two bibliographic references.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

UDC 577.1:612.744+577.1:612.015.33

GOLOBOROD'KO, O. P., Institute of Biochemistry, Academy of Sciences Ukrainian SSR, Kiev

"Deamination of Adenylic Acid in Subcellular Elements in Skeletal Muscles during Physical Stress"

Kiev, Ukrainskiy Biokhimicheskiy Zhurnal, Vol 42, No 3, 1970, pp 335-340

Abstract: The effect of physical stress on the activity of AMP-aminohydrolase was studied in various elements of rabbit skeletal muscle cells. It was shown that the activity of AMP-aminohydrolase in the homogenate, myofibrils, and soluble fraction of the cytoplasm from fatigued muscles is decreased by a factor of 1.4, 1.9, and 1.75, respectively, as compared to the activity of muscles at rest. In mitochondria, on the other hand, activity increased by a factor of 1.7. The activity of AMP-aminohydrolase in microsomes of muscles subjected to physical stress did not differ from that of the controls. The initial portion of the curve of enzyme saturation with the substrate has a sigmoid shape for the microsomal AMP-aminohydrolase at rest. Microsomes of fatigued muscles and muscles of the extremity opposite the one exercised have a hyperbolic curve.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

FUDIM, Ye. V., GOLOD, A. L., CHAYKO, A. L., and SLOBODKIN, V. M.

"Pneumatic Computing Device"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 27, 1972, p 163, No (11) 351220

Translation: This device contains an input converter in the form of a pulsating resistance, the output of which is connected to the input of a gas flow integrator. For the sake of accuracy and structural simplicity, the device contains a block for removing the constant portion of the gas flow. The control channel of the gas is connected to the output of the device, the input channel is connected to the integrator input, and the output is connected to a constant pressure source.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

1/2 025 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--HYDROLYSIS OF DINITROACETONITRILE IN SULFURIC ACID -U-

AUTHOR-(04)-MINTS, YE.S., TESLER, R.S., GOLOD, YE.L., BAGAL, L.I.

COUNTRY OF INFO--USSR

SOURCE--ZH. ORG. KHIM. 1970, 6(4), 698-701

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--HYDROLYSIS, ORGANIC NITRILE COMPOUND, SULFURIC ACID, CHEMICAL REACTION KINETICS, ACTIVATION ENERGY, CHEMICAL REACTION MECHANISM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--2000/2177 STEP NO--UR/0366/70/006/004/0698/0701

CIRC ACCESSION NO--AP0125757

UNCLASSIFIED

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

2/2 025 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0125757

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE KINETICS OF (O SUB2 N) SUB2 CHCN (I) HYDROLYSIS WITH 85.3-99.0PERCENT H SUB2 SO SUB4 WERE STUDIED IN THE TEMP. RANGE 5.8-25DEGREES. THE REACTION IS BIMOL. AND ITS ACTIVATION ENERGY DECREASED WITH THE INCREASE OF H SUB2 SO SUB4 CONCN. A MECHANISM IS PROPOSED. FACILITY: LENINGRAD. TEKHNOL. INST. IM. LENSOVETA, LENINGRAD, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

UDC 621.375.82

GOLODENKO, N. N., GUZ'MICHEV, V. M.

"Heating and Evaporation of Metal by a Laser Pulse"

Radiotekhnika. Resp. mezhved. temat. nauch.-tekhn. sb. (Radioengineering. Republic Interdepartmental Thematic Scientific-Technical Collection), 1972, No. 23, pp 139-142 (from RZh-Fizika, No 1, Jan 73, Abstract No 1D950)

Translation: The equation for heat conductivity upon the absorption of a rectangular pulse of optical power at the boundary of a metal is solved. The coordinate origin is connected to the moving boundary. When a critical energy is exceeded, the portion of energy going into heating the sample drops rapidly, since a fundamental portion of the energy of the pulse is carried off by evaporation products. Authors' abstract.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR UDC: 621.313.29:538.4

GOLODNYAK, V. A., SINEL'NIKOVA, A. Ye., and TOLMACH, I. M.

"D-C Power Conduction Pump of Higher Operating Voltage"

Riga, Magnitnaya gidrodinamika, No 1, 1973, pp 117-121

Abstract: This paper is the outgrowth of a patent (I. M. Tolmach, Author's certificate No 232755 from 24/4/1967, Otkrytiya, izobreteniya, prom. obraztsy, tov. znaki, No 1, 1969) which proposed a d-c liquid metal conduction pump system having the distinctive feature of higher supply voltage at a reduced operating current. There are two such devices: one in which there is an edge effect, the other in which the edge effect does not exist. These types are compared in the present paper, their relative electromagnetic efficiencies estimated with their respective volumes and pressures considered to be equal. A table is given of the comparative parameters of both types of pump using liquid potassium at 700° C. The results of the comparison indicate that the pump with the edge effect has a higher efficiency than its rival but also has a higher operating current, 56 kA for the first and 14.8 kA for the second. Since this latter fact is a hindrance to the technical realization of the device, the second version is preferred.
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GOLODNYAK, V. A.

JPRS 60634
27 November 1973

POWERFUL DC CONDUCTION PUMP WITH INCREASED OPERATING VOLTAGE

[Abstract of a Paper by V. A. Golodnyak, A. Ye. Sinel'nikova, I. M. Tolmach Given at the Magnetohydrodynamic Conference, pp 137-139]

As is known [1], the dc conduction pump with increased voltage permits the magnitude of the operating current to be reduced for a corresponding increase in the feed voltage (Figure 1).

In the traditional dc conduction pump [2], part of the current flows around the zone of the strong magnetic field through the ends of the pump causing the so-called "boundary effect." On the basis of the characteristic features of the pump diagram with increased voltage, the boundary effect is absent; however, there is always a longitudinal useless current reducing the efficiency of the machine.

Figure 1.

A comparison of these two types of dc pumps with respect to the reduced electromagnetic efficiency permits evaluation of the conditions under which the negative effect of the boundary effect in one pump and the longitudinal current in the other pump will be of the same order.

The design of a powerful pump by the schematic presented in reference [1] has been developed which insures a linear head characteristic in the section ($24.5 \cdot 10^3$ n/m^3, 0.015 m^3/sec); ($14.7 \cdot 10^5$ n/m^3, 0.03 m^3/sec) for pumping liquid potassium at a temperature of 700°C.

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GOLODNYAK, V. A., SINEL'NIKOVA, A. Ye., TOLMACH, I. M.

"A High-Power Direct Current Conduction Pump with High Operating Pressure"

7-ye. Soveshch. po Magnit. Gidrodinamike. T. 1. [Seventh Conference on Magnetic Hydrodynamics, Vol 1 -- Collection of Works], Riga, Zinatnye Press, 1972, pp 137-139, (Translated from Referativnyy Zhurnal, Mekhanika, No 10, 1972, Abstract No 10 B133, by A. E. Mikel'son).

Translation: A description is presented of a pump planned by the author's for liquid potassium with the following parameters: $p = 17.6 \cdot 10^5$ n/m^2, Q = 0.03 m /sec, I = 14,870 a, U = 15.2 v, B = 0.25 tesla, η = 25%. The total weight of the pump is 2.5 t (1.9 t being the weight of the magnetic system). The pump operates on the principle of successive transmission of current through individual working zones located along a street channel. The pump has practically no edge effect, but a longitudinal parasitic current always exists in the pump, reducing its effectiveness.

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USSR

UDC 678.5.06-419.8:66.085.3/.5

P'YANKOV, G. N., MOROZOV, A. V., OMEL'CHENKO, S. I., KABAKCHI, A. M., BESSONOV, V.G., CHERVETSOVA, I. N., VIDENINA, N. G., DYACHOK, V. T., and GOLODNYY, YU. F., Institute of Physical Chemistry imeni L. V. Pisarzhevskiy, Kiev, Academy of Sciences Ukrainian SSR, and Institute of Chemistry of High Molecular Compounds, Kiev, Academy of Sciences Ukrainian SSR

"Radiation Technology of Manufacturing Glass-Plastics"

Kiev, Khimicheskaya Promyshlennost' Ukrainy, No 4, 1970, pp 8-10

Abstract: Production of glass plastics using electron accelerators as radiation sources is described. The operating principle is explained with an example of the manufacture of a cylindrical sheet of cross winding. The mandrel speed, feed pitch, and dose strength are selected so that during the time of passage of the winding section across beam cross-section the required degree of polymerization of the binder is attained. The degree of polymerization between layers wound on top of each other is regulated by the energy of the impinging radiation and beam current. The source of fast charged particles in the model setup is an accelerator with maximum electron energy of 0.4 Mev. Electrons at this energy ensure radiation polymerization of a 0.2-0.3 mm layer of glass-plastics. In this layer, when the density of the current of the beam is several tens of microamperes per square centimeter, dose strength of 10^6-10^7 rads/sec is produced.

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USSR

UDC: 621.313.29:538.4

GOLODOV, N. N., KRAUYA, V. M., YANKOP, E. K.

"Use of a DC Conduction Pump for Ferrous Metals in Cut-Off Conditions"

Riga, Magnitnaya Gidrodinamika, No 3, Jul-Sep 1971, pp 118-124

Abstract: The particulars of operation of a DC conduction pump in the cut-off (deceleration) mode are experimentally and theoretically studied for molten ferrous metal. The following possibilities are considered: a) development by the pump of a head sufficient to slow down the jet; and b) limiting the change in temperature of the molten metal within the pump so that it is not allowed to solidify there at low velocities. It is proposed that the head of the pump in the cut-off state be calculated from relations for an idealized pump with the introduction of a coefficient of head reduction. A method is given for determining the proposed coefficient which takes current spreading into account. Studies of an experimental cut-off device confirmed the feasibility of regulating jets of iron and steel by electromagnetic forces up to total cessation of metal flow from the tank at a pressure of 1 atmosphere. One table, six illustrations, bibliography of seven titles.

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USSR UDC 669.71'295.053.4.094(088.8)

MAZALETSKIY, G. D., KATS, M. SH., ZHURAVLEV, V. M., RYABIN, V. A., BAYTAKOVA, R. S., GOLOBOV, S. M.

"Procedure for Processing Slag from Aluminothermal Production of Ferrotitanium"

USSR Author's Certificate No 276122, Filed 27 Mar 65, Published 15 Oct 70 (from RZh-Metallurgiya, No 4, Apr 71, Abstract No 4G147P)

Translation: A procedure is proposed for obtaining Ti concentrate and Al_2O_3 from slag formed during aluminothermal production of Fe-Ti. The procedure includes sintering of the crushed slag with soda at 1,130-1,150°. The cake is processed in a sodium solution which converts the oxides to solution from which $Al(OH)_3$ is precipitated, and the Ti oxides remain in the slag.

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GOLODOV V.A.

Acc. Nr: AP0034226 Abstracting Service: CHEMICAL ABST. 4-70 Ref. Code: UR 0079

71299h Water-dioxane-perchloric acid, water-dioxane-potassium tetrachloropalladate(II), and water-dioxane-potassium tetrabromopalladate(II) systems. Golodov, V. A.; Lasman, A. B.; Rovanov, V. V.; Enker, E. F. (Kaz. Gos. Univ., Alma-Ata, USSR). *Zh. Neorg. Khim.* 1970, 15(1), 30-3 (Russ). Effect of $HClO_4$, K_2PdCl_4, or K_2PdBr_4 addn. was studied on elec. cond., viscosity (η), and d. of dioxane-water system at 25 and 45°. Addn. of $HClO_4$ or K_2PdX_4 (X = Cl or Br) did not affect the nature of d. and η isotherms. Elec. cond. decreased with increasing concn. of dioxane in the mixt. due to decreased dissocn. of the additives studied. HMJR

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1/2 023 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--ACTION OF OROTIC ACID HYDRAZIDE ON THE GROWTH OF NEUROSPORA CRASSA AND EHRLICH ASCITE TUMOR -U-

AUTHOR-(03)-GOLOGINSKIY, YE., EMANUILOV, E., MARKOV, G.G.

COUNTRY OF INFO--USSR

SOURCE--VOPROSY MEDITSINSKOY KHIMII, 1970, VOL 16, NR 3, PP 293-295

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--FUNGUS, MICROORGANISM, OROTIC ACID, AZIDE, ANTINEOPLASTIC DRUG, ASPARTIC ACID, BIOSYNTHESIS, INHIBITON, TUMOR

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1998/0146 STEP NO--UR/0301/70/016/003/0293/0295

CIRC ACCESSION NO--AP0120846

UNCLASSIFIED

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

2/2 023 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0120846

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IT WAS SHOWN THAT THE OROTIC ACID HYDRAZIDE INHISITS THE GROWTH OF NEUROSPORA CRASSA. THE INHIBITORY EFFECT OF OROTIC ACID HYDRAZIDE IS PARTIALLY REVERSED BY OROTIC ACID AND ALSO BY SOME PRECURSORS OF ITS BIOSYNTHESIS (ASPARTIC ACID AND UREIDOSUCCINIC ACID). THE INHIBITROY EFFECT COULD ALSO BE REVERSED IN A LESS DEGREE BY URACIL THYMINE AND CYTOSINE. THE EFFECT OF OROTIC ACID HYDRAZIDE ON THE GROWTH OF EHRLICH ASCITE TUMOR OF MICE WAS INVESTIGATED. IT WAS SHOWN THAT THE OROTIC ACID HYDRAZIDE POSESSES A SLIGHT ANTITUMOR ACTION IN DOSES NEARLY TO LETHAL. FACILITY: BIOCHEMICAL RESEARCH LABORATORY, BULGARIAN ACADEMY OF SCIENCES, SOFIA, BULAGRIA.

UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

1/2 025 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--A COMPARATIVE EVALUATION OF THE ANALGETIC EFFECT OF ANALGESICS -U-

AUTHOR--ZYSKIN, A.I., GOLOGORSKIY, V.A.

COUNTRY OF INFO--USSR

SOURCE--VESTNIK KHIRURGII IMENI I. I. GREKOVA, 1970, VOL 104, NR 3, PP 97-99

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--DRUG EFFECT, ANALGESIC DRUG, PAIN, MORPHINE, SURGERY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1936/0854 STEP NO--UR/0589/70/104/003/0097/0099

CIRC ACCESSION NO--AP0102815

UNCLASSIFIED

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

2/2 025 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0102815

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN THE PAPER A COMPARATIVE EVALUATION OF SOME MOST FREQUENTLY USED ANALGESICS IS GIVEN. FOR MEASURING PAIN THRESHOLDS AN APPARATUS DOLORIMETRE, DEVISED BY THE AUTHORS HAS BEEN EMPLOYED. MORPHINE IN A DOSE OF 10 MG, OMNOPON, 20 MG AND PROMEDOL, 0.5 MG PER KG WEIGHT EXHIBIT A SIMILAR ANALGETIC ACTION. ANALGINE IN A DOSE OF 500 MG DOES NOT SHOW ANY CHANGES IN THE PAIN THRESHOLDS. A COMBINATION OF 10 MG OF PROMEDOL WITH 500 MG OF ANALGINE, ALSO INCREASING THE PAIN THRESHOLDS AS MORPHINE IN A DOSE OF 10 MG, DOES NOT SHOW ANY SIDE EFFECTS TYPICAL OF MORPHINE, THAT ENABLED TO RECOMMEND WIDELY THIS COMBINATION OF ANALGESICS FOR THE POSTOPERATIVE ANALGESIA.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

1/2 018 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--POLYPHOSPHATE LEVEL IN SOME SPECIES OF YEASTS GROWN IN VARIOUS CARBON SOURCES -U-
AUTHOR-(03)-STRESHINSKAYA, G.M., NAUMOVA, I.B., GOLOLOBOV, A.D.

COUNTRY OF INFO--USSR

SOURCE--KOKL. AKAD. NAUK SSSR 1970, 190(1), 227-30

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--YEAST, CARBON, PHOSPHATE, NUCLEIC ACID, CULTURE MEDIUM, HYDROCARBON, GLUCOSE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1997/1097 STEP NO--UR/0020/70/190/001/0227/0230

CIRC ACCESSION NO--AT0119956
UNCLASSIFIED

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

2/2 018 UNCLASSIFIED PROCESSING DATE--23OCT70
CIRC ACCESSION NO--AT0119956
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. FRACTIONS OF P (ACID AOL., ACID INSOL., TOTAL ORTHOPHOSPHATE, AND NUCLEIC ACID P) WERE TABULATED FOR MATERIAL OBTAINED FROM C(ANDIDA) INTERMEDIA AND T(ORULOPSIS) FAMATA SPECIES AFTER INCUBATION FOR UP TO 3 DAYS IN CULTURE CONTG. ADDED PARAFFIN OR GLUCOSE. POLYPHOSPHATE CONTENT WAS ALSO TABULATED FOR C. LIPOLYTICA, C. TROPICALIS, C. PELLICULOSA, AND C. GUILLIERMONDII. ADDN. OF HYDROCARBONS TO THEMEDIUM INCREASED THE SYNTHESIS OF POLYPHOSPHATES 2 FOLD THAN IN MEDIA CONTG. EASILY ASSIMILATED GLUCOSE.
MOSK. GOS. UNIV. IM. LOMONOSOVA, MOSCOW, USSR.

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USSR UDC: 621.385:530.145.6:623.317.17

KONTSEVOY, Yu. A., REZVYY, R. R., GOLOLOBOV, V. M., and KUDRYAVTSEV, Ye. N.

"Ellipsometric Control Methods Using a Laser"

Elektron. tekhnika. Nauchno-tekhn. sb. Upr. kachestvom i standartiz. (Electronic Engineering, Scientific-Technical Collection, Quality and Standardization Control) 1970, No. 2, pp 115-122 (from RZh-Radiotekhnika, No. 3, March 71, Abstract No. 3D393)

Translation: A description is given of laser ellipsometric microscopes with beam incidence angles of 45 and 70°, designed for nondestructive control of thickness and refraction indices of fine transparent dielectric layers on the surface of semiconductors, as well as for measurement of the uniformity of these parameters. A system is given of graphic solution for an exact ellipsometry equation for germanium and silicon specimens. The utilization areas of ellipsometers are examined. Resume

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

UDC 632.95

MIKHAYLOV, B. I., GOLOLOBOV, YU. G., and KOFMAN, L. P.

"A Process for Preparing 2-hydeoxyethylthiol-4,6-diamino-s-triazides"

USSR Author's Certificate No 348564, filed 10 Jul 70, published 8 Sep 72 (from Referativnyy Zhurnal -- Khimiya, No 12(II), 1973, Abstract No 12N524P by T. A. Belyayeva)

Translation: The compounds 2-oxyethylthiol-4,6-RR'N-symtriazine (I) (R, R' = H, an alkyl) were prepared. These are used in the synthesis of insecticides and are prepared by the reaction of 2-X-4,6-RR'N-sym-triazine (II) (X = a halide) with β-oxyethylmercaptides of alkali metals in a solvent. To prepare the products with a high yield, it is desirable to carry out the reaction in a stream of nitrogen. For example, to 10 g $NOCH_2CH_2SNa$ in 40 ml of water is added 20.15 g of (II) (C = Cl, R = H, R' =Et) suspended in 100 ml of ethyl-2-ethoxyethanol. The reacting slurry is allowed to stand at 90° for 4 hours with a stream of nitrogen bubbling through it. It is cooled to 20°, added to 400 ml of water, and allowed to stand for 16 hours. The precipitate is filtered off, resulting in 17.2 g of (I) (R = H, R' =Et), yield of 70%. Its melting point was 85-87°. Other compounds were prepared as follows:

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MIKHAYLOV, B. I., et al., USSR Author's Certificzte No 348564, filed 10 Jul 70, published 8 Sep 72

R = Me, R' = Me, % yield = 87%, melting point = 73-75°,

R = Et, R' = Et, % yield - 75%, melting point - none given, $n^{20}D$ - 1.5444, d_4^{20} = 1.1395.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

UDC 546.185

KOLODYAZHYY, O. I., KALYAGIN, G. A., and GOLOLOBOV, Yu. G., Institute of Organic Chemistry, Acad. Sc. Ukrainian SSR

"Reaction of Chlorophosphates With Metallic Derivatives of Malonic Esters"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 8, Aug 73, pp 1859-1860

Abstract: Diethyl chlorophosphate reacts with sodium, potassium, or lithium derivatives malonic ester via O-phosphorylation, yielding diethyl (carboethoxypropenyl) phosphate, b.p. 120-122°/0.05 mm, n_D^{20} 1.4472, d_4^{20} 1.1650.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

UDC 546.183.2

IVANOVA, ZH. M., GUSAR', N. I., MIROSHNICHENKO, V. V., and GOLOLOBOV, Yu. G., Institute of Organic Chemistry, Academy of Sciences, UkrSSR

"Reaction of Dialkylaminosulfenyl Chlorides With Alkyl Diflurophosphites"

Leningrad, Zhurnal Obshchey Khimii, Vol 42 (104), No 9, Sep 72, p 2115

Abstract: Diethylaminosulfenyl chloride reacts with two equivalents of ethyl difluorophosphite yielding ethyl difluorothiophosphate, b.p. 78-79°, d_4^{20} 1.2293, n_D^{20} 1.3755, and diethyl amidodifluorophosphate b. p. 44-45°/12 mm, d_4^{20} 1.1470, n_D^{20} 1.3730. The starting ethyl difluorophosphite was obtained by fluorination of ethyl dichlorophosphite with antimonytrifluoride, b.p. 23-24°, d_4^{15} 1.0922, n_D^{15} 1.3280.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

UDC 632.95

SEMIDETKO, V. V., and GOLOLOBOV, Yu. G.

"A Method of Synthesizing S-[α-alkoxy-alkylmercapto)]-vinyl Phosphates"

USSR Author's Certificate No 259877, filed 10 Jun 68, published 20 May 70 (from RZh-Khimiya, No 3, 10 Feb 71, Abstract No 3N554)

Translation: Dialkyl S-vinylphosphates of the general formula $(RO)_2P(O)-SC(XR')=CH_2$ (I), where R and R' = a lower alkyl, X = O, S, are synthesized by the reaction of dialkylthiophosphoric acid with alkoxy- or alkylmercapto-acetylene followed by isolation of I by conventional methods. Five and one-half grams of $(EtO)_2P(O)OH$ is slowly added to 3 $EtOC{\equiv}CH$; the temperature rises to 45-50°C; the temperature is held at approximately 20°C for 2-3 hours and the product is distilled under vacuum. Double distillation yields 5.5 g of I (R = EtO; R'X = EtO), yield 70.8%, boiling point 75-76°C/0.005, $n^{20}D$ 1.4690, d_4^{20} 1.1315. An analogous method is used to produce compound I with R = EtO, R'X = EtS, yield 85.4%, boiling point 87°C/0.005, $n^{20}D$ 1.5090, d_4^{20} 1.1610. Compounds I may be used as insecticides.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

UDC: 547.26.118'311.07

SEMIDETKO, V. V., GOLOLOBOV, YU. G.

"A Method of Producing Dialkyl-S-[α-Alkoxy(alkylmercapto)]vinylphosphates"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 3, 1970, p 31, Patent No 259877, filed 10 Jun 68

Abstract: This Author's Certificate introduces a method of producing dialkyl-S-[α-alkoxy(alkylmercapto)]vinylphosphates. The distinguishing feature of this method is that dialkylthiophosphoric acid reacts with alkoxy- or alkylthioacetylene with subsequent isolation of the product by conventional methods.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

AA0043422

GOLOI-OBOUA A.A.
UR 0482

Soviet Inventions Illustrated, Section I Chemical, Derwent, 3-76

228016 METHACRYLIC ANHYDRIDE is prepared by reaction of methacrylic acid with its chloranhydride in the presence of pyridine in an organic solvent medium on cooling with subsequent isolation of the purpose product, and in order to simplify the process toluene is used as the reaction medium and temp. is about 10°C. In an example 90 g of methacrylic acid, 95g of pyridine and 175 ml. of toluene are fed into a four-tube rea tor, fitted with a stirrer, thermometer and a dropping funnel. The mixture is cooled with cold water (12 ± 2°C) then 104.5 g of chloranhydride of methacrylic acid is added with intensive stirring for 1 hr (temp. in the reactor increases to 25°C). Then mixture is stirred for 1 hr at 12 ± 2°C and 1 hr. at room temp. The precipitated acid pyridine salt is dissolved directly in the reactor with a cooled solution of HCl (1 : 3). The upper layer

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is separated and washed again with 100 ml. of soln. of HCl (1 : 3), then twice with 100 ml. of distil. water each time. 287 g. of top layer was obtained, toluene was distilled of 77 mm Hg). Raw material (133 g) was rectified on the glass column with 6 - 7 theoretical plates. The first fraction was obtained at 60 - 65°C and 4 mm Hg, reflux ratio 4. The amount of the first fraction obtained as 10 - 15 pt b. vol. After raising vapour temp. to 74 - 74°C (final pressure 4 mm Hg) the second fraction was extracted (reflux ratio 2), 98.5 g of pure methacrylic anhydride was obtained. 7.5.67. as 1153298/23-4, GOLOLOBOVA, A.A. and SLEPTSOVA, O.M. (12.5.69) Bul. 31/8.10.68. Class 120, Int. Cl. C 07c.

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APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

LESHCHEV, V. I., GOLOBURDIN, A. I.

UDC 533.697

"Study of Conditions for the Pneumatic Transportation of Pulverized Rubber"

V. sb. Materialy II Vses. konf. "Mekh. sypuch. materialov" (Materials of the Second All-Union Conference "Mechanics of Friable Materials" -- Collection of Works), Odessa, 1971, pp 57-58 (from RZh-Mekhanika, No 3, Mar 72, Abstract No 3B349)

Translation: Studies of the possibility of pneumatic transportation of synthetic rubber pulverized by crushing are described. Polydisperse rubber powder with a particle size from 0.25 to 5.0 mm and monofractional rubber powder were transported. Experiments were conducted in two ducts of diameter 50 and 100 mm at concentrations from 5.0 to 9.0 kg/kg and at a rate of from 4000 to 6000 kg/hr. The basic parameters of the motion of the mixture were established, particularly the dependence of air flow in the efficiency of the device on concentration. The possibility of stable transportation of fractionated rubber was proved on the basis of the experiments and data were obtained necessary for calculating pneumatic transportation devices.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR UDC 66.085.3/.5:678.742.2

P'YANKOV, G. N., KABAKCHI, A. N., GOLODNYY, YU. F., BRASHKIN, M. A., LOPATIN, I. P., YARMILKO, YE. G., and BORDIKOVA, A. N., Institute of Physical Chemistry, Acad. Sc. UkrSSR

"Experimental Line for the Production of Radiation Modified Polyethyelene Tubes UR-0.4T"

Kiev, Khimicheskaya Tekhnologiya, No 2 (62), Mar-Apr 72, pp 50-52

Abstract: An experimental line has been constructed for the production of radiation modified polyethylene tubes. The novelty of this process is in the irradiation method. The tubes pass repeatedly through the irradiation zone in a spiral pattern, with alternating directions of the rotation, so that exposure is uniform to the radioactive source, and damage due to the radiation heat is minimal. As an example, a tube 6 mm in diameter, wall thickness up to 0.5 mm, moving at a velocity of 2m/min, after 6 passages through the chamber picks up a dose of 45 Mrads.

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USSR UDC 616-001.4-002.3:615.779.9

GOLOMAZOV, M. F., Ternopol' Medical Institute

"Clinical and Morphological Characteristics of the Healing of Suppurative Wounds Treated with Dimethylsulfoxide (Experimental Study)"

Moscow, Klinicheskaya Khirurgiya, No 2, 1970, pp 52-56

Abstract: A 40% solution of dimethylsulfoxide had a marked bactericidal and anti-inflammatory effect on wounds inflicted on dogs. It also stimulated regeneration and maturation of granulation tissue. Three days after treatment, the wound was much smaller than when freshly inflicted. Five days later, wounds were still smaller and filled with granulations even in places where tiny sections were removed for histological study. At this time the wound surface in control animals was still covered with a suppurative discharge, and granulations were less distinct. Healing was almost complete in the experimental animals by the end of the second week, whereas in controls wounds were still large and covered with crusts over a suppurative discharge. Wound margins were inflamed and thickened.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

1/2 017 UNCLASSIFIED PROCESSING DATE--30DEC70

TITLE--ANTIFROTHING AGENTS FOR AQUEOUS SYSTEMS CONTAINING SURFACE ACTIVE AGENTS -U-

AUTHOR-(03)-GOLOMB, L.M., MAY, L.S., GONCHAROVA, G.G.

COUNTRY OF INFO--USSR

SOURCE--KHIM. PROM. UKR. 1970, (2), 41-3

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--ANTIFOAM ADDITIVE, SURFACE ACTIVE AGENT, EMULSION, POLYSILOXANE/(U)PMS1000A POLYSILOXANE, (U)OS2 EMULSIFIER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0959 STEP NO--UR/0436/70/000/002/0041/0043

CIRC ACCESSION NO--AP0124619

UNCLASSIFIED

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

2/2 017 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124619

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. GOOD RESULTS WERE OBTAINED WITH THE PRODUCT SE-2, CONSISTING OF A 30PERCENT EMULSION OF POLY(METHYLSILOXANE) PMS-1000A MADE IN A 3PERCENT AQ. SOLN. OF THE EMULSIFIER OS-2 BY MIXING AT 300 RPM. THIS ANTIFROTHING AGENT USED IN AMTS. OF 0.01-0.05PERCENT WAS EFFECTIVE IN PREVENTING FROTH FORMATION AND IN BREAKING THE FROTH IN AQ. SOLNS. CONTG. ANIONACTIVE AND NONIONIC SURFACTANTS. FACILITY: RUBEZHAN. FILIAL, NIOPK, RUBEZHNOE, USSR.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

1/2 014 UNCLASSIFIED PROCESSING DATE--11SEP70
TITLE--BENZODIAZINES. XI. COVALENT HYDRATION IN A SERIES OF BENZOSUBSTITUTED DERIVATIVES OF TETRAZOLO(1,5-C)QUINAZOLINE -U-
AUTHOR--POSTOVSKIY, I.YA., GOLOMOLZIN, B.V.

COUNTRY OF INFO--USSR

SOURCE--KHIM. GETEROTSIKL. SOEDIN. 1970, (1), 100-2

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--HYDRATION, BENZENE DERIVATIVE, HYDRAZINE ORGANIC DERIVATIVE, BROMINATED ORGANIC COMPOUND, ORGANIC AZOLE COMPOUND, POLYNUCLEAR HYDROCARBON, HETEROCYCLIC NITROGEN COMPOUND, HYDROXYL RADICAL, CHEMICAL REACTION MECHANISM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1987/1695 STEP NO--UR/0409/70/000/001/0100/0102

CIRC ACCESSION NO--AP0104906
UNCLASSIFIED

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

2/2 014 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0104906

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. BOILING 0.01 MOLE 2,PHENYL,4,CHLORO,6,BROMOQUINAZOLINE (I) WITH 0.05 MOLE H SUB2 NNH SUB2 TIMES H SUB2 O IN 50 ML C SUB6 H SUB6 GAVE 90PERCENT 2,PHENYL,4,HYDRAZINO,6,BROMOQUINAZOLINE (II), M. 226-8DEGREES (DECOMPN.) (ETOH). A MIXT. OF 0.01 MOLE I, 0.01 MOLE NAN SUB3, 100 ML ETOH, AND 2 ML H SUB2 O BOILED 1 HR GAVE 95PERCENT 5,PHENYL,9,BROMOTETRAZOLO(1,5-C)QUINAZOLINE (III), M. 160-61DEGREES (ISO-PROH). III WAS ALSO PREPD. BY TREATING 0.01 MOLE II IN 50 ML CONCD. H SUB2 SO SUB4 AND 50 ML H SUB2 O WITH AQ. 0.01 MOLE NANO SUB2 AT 80DEGREES. III (0.01 MOLE) WAS BOILED WITH 150 ML 1:1 HCL-H SUB2 O 3 HR, THE PPT. WAS FILTERED OFF, AND THE FILTRATE GAVE, AFTER TREATMENT WITH NH SUB3, 6PERCENT 2,PHENYL,6,BROMO,4,QUINAZOLONE (IV), M. 303-5DEGREES (ISO-PROH). THE PPT. DISSOLVED IN NH SUB3 AND PPTD. WITH HCL GAVE 75PERCENT 5,6,DIHYDRO,5,PHENYL,5,HYDROXY,9,BROMOTETRAZOLO(1,5-C),QUINAZOLINE (V), M. 251-52DEGREES (DECOMPN.) (ISO-PROH). V BOILED WITH 10PERCENT KOH 4 HR AND NEUTRALIZED WITH ACOH GAVE 50PERCENT 5,(2,AMINO,5,BROMOPHENYL)TETRAZOLE (VI), M. 205-6DEGREES (H SUB2 O), WHICH, TREATED WITH BZCL IN C SUB5 H SUB5 N GAVE V. VI BOILED WITH AC SUB2 O 20 MIN GAVE 70PERCENT 5,METHYL,5,HYDROXY,9,BROMO,5,6,DIHYDROTETRAZOLO(1,5-C)QUINAZOLINE (VII), M. 205-6DEGREES (AQ. ISO-PROH). III BOILED WITH 10PERCENT KOH 5 HR GAVE VI. MECHANISM OF THE COVALENT HYDRATION OF III IS DISCUSSED.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

1/2 009 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--ALKALINE SPLITTING OF 5,PHENYL,7(9),R,TETRAZOLO(1,5 C)QUINAZOLINES -U-

AUTHOR--GOLOMOLZIN, B.V., POSTOVSKIY, I.YA.

G

COUNTRY OF INFO--USSR

SOURCE--KHIM. GETEROTSIKL. SOEDIN. 1970, (2), 281-2

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ORGANIC AZOLE COMPOUND, BENZENE DERIVATIVE, HETEROCYCLIC NITROGEN COMPOUND, AMINE, CHLORINATED ORGANIC COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1984/1804 STEP NO--UR/0409/70/000/002/0281/0282

CIRC ACCESSION NO--AP0100378

UNCLASSIFIED

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

2/2 009 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0100378

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. BOILING 0.0002 MOLE IN IN 10 ML 10PERCENT NAOH GAVE IN 50-60PERCENT YIELDS II (R PRIME1, R PRIME2, AND M.P. II) H, ME, 191-2DEGREES; CL, H, 197-9DEGREES; H, CL, 192-4DEGREES; H, OME, 162-3DEGREES.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

Converters

USSR

UDC: 621.394.676

STEPANOV, A. V., PARAMONOV, G. N., GOLOMOZYUK, V. A., "Arsenal" Plant imeni V. I. Lenin

"A Device for Converting Binary Code to Binary-Decimal-Sexagesimal Code"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 31, Nov 71, Author's Certificate No 318158, Division H, filed 29 Sep 69, published 19 Oct 71, p 211

Translation: This Author's Certificate introduces a device for converting binary code to binary-decimal-sexagesimal code. The device contains a first binary counter, a pulse generator and a binary-decimal-sexagesimal counter. As a distinguishing feature of the patent, conversion accuracy is improved by using a series-parallel summation device which contains a second binary counter and a pulse distributer whose input is connected to the generator output. The input of the generator is connected to the output of the first binary counter, and the distributer outputs are connected in parallel to the inputs of the second counter, and in series to the input of the binary-decimal-sexagesimal counter.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

UDC 622:242+553

KARAVAYKO, G. I., KUZNETSOV, S. I., GOLOMZIK, A. I.

"The Role of Microorganisms in Leaching of Metals from Ores"

Rol' Mikroorganizmov v Vyshchelachivanii Metallov iz Rud. [English Version Above], Nauka Press, Moscow, 1972, 248 pages.

Translation of Introduction: The leaching of nonferrous metals from ores includes oxidation of sulfide minerals and washing of the soluble salts of these metals thus formed from the ores. Leaching is easiest for metals present in the ore in the form of oxides. In this process, weak solutions of sulfuric acid are most frequently used as the solvent. As we know, rare elements are present in the crystalline lattices of many sulfides, isomorphically replacing such elements as copper, zinc, lead, etc. The actual sulfides of the rare elements are rarely encountered. During oxidation of sulfide minerals, their crystalline lattice is broken down, the rare elements go over into solution if the conditions are favorable,and are extracted from the ore.

Thus, leaching of nonferrous and rare metals is based on two processes: oxidation of the sulfide mineral and washing out of the metals with solutions.

In the leaching of nonferrous and other metals, great significance is given to the activity of microorganisms. The sulfide ores of nonferrous

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KARAVAYKO, G. I., KUZNETSOV, S. I., GOLOMZIK, A. I., Rol' Mikroorganizmov v Vyshchelachivanii Metallov iz Rud., Nauka Press, Moscow, 1972, 248 pages.

metals are most suitable for bacterial leaching; therefore, in studying processes of bacterial leaching of these metals, primary attention is given to thiogenic bacteria.

The approach to determination of the suitability of the bacterial method for leaching of nonferrous metals from ores of a given deposit consists of three aspects: analysis of data characterizing the deposit (reserves of ore, geology, degree of exploitation, geochemical situation, etc.), presence of the corresponding groups of microorganisms in the deposit itself, and laboratory and pilot-scale studies of individual types of ore. This allows efficient selection of the corresponding technology and object of leaching of the metals.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

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KARAVAYKO, G. I., KUZNETSOV, S. I., GOLOMZIK, A. I., Rol' Mikroorganizmov v Vyshchelachivanii Metallov iz Rud., Nauka Press, Moscow, 1972, 248 pages.

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KARAVAYKO, G. I., KUZNETSOV, S. I., GOLOMZIK, A. I., Rol' Mikroorganizmov v Vyshchelachivanii Metallov iz Rud., Nauka Press, Moscow, 1972, 248 pages.

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KARAVAYKO, G. I., KUZNETSOV, S. I., GOLOMZIK, A. I., Rol' Mikroorganizmov v Vyshchelachivanii Metallov iz Rud., Nauka Press, Moscow, 1972, 248 pages.

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KARAVAYKO, G. I., KUZNETSOV, S. I., GOLOMZIK, A. I., Rol' Mikroorganizmov v Vyshchelachivanii Metallov iz Rud., Nauka Press, Moscow, 1972, 248 pages.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

KARAVAYKO, G. I., KUZNETSOV, S. I., GOLOMZIK, A. I., Rol' Mikroorganizmov v Vyshchelachivanii Metallov iz Rud., Nauka Press, Moscow, 1972, 248 pages.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

UDC 669.3.053.4.094

KRYUCHKOV, V. A., COLOMZIK, A. I.

"Application of the Simplex Method for Optimizing Bacterial Oxidizing Processes"

Tr. Ural'sk. n.-i. i proyekt. in-ta medn. prom-sti (Works of the Ural'sk Scientific Research and Planning and Design Institute of the Copper Industry), 1971, vyp. 14, pp 173-177 (from RZh--Metallurgiya, No 4, Apr 72, Abstract No 4G294)

Translation: In order to optimize the process of regeneration of the oxidizing agent ($Fe_2(SO_4)_3$), one of the stages of the process of bacterial leaching of metal out of ore, the method of successive simplex planning is used. The essence of this planning is that first for k variable factors, the zero level and interval of variation of their values are selected, and k + 1 different experimental conditions are planned, the values of the variable factors of which are calculated so that the set of planned conditions will form a proper simplex in the k-dimensional space. The application of the simplex planning method has permitted acceleration of the oxidizing agent regeneration process by 2.5 times. Two tables and a 5-entry bibliography.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

USSR

UDC: 8.74

LAMPIGA, V. V., GOLOPEROVA, L. I., ABRAMOV, V. A.

"Decimal Printout of a Number With a Variable Quantity of Digital Places in the Mantissa on the Alphanumeric Printer of the 'Ural-4' Computer"

[Sb. tr.] In-t gorn. mekh. i tekhn. kibernet im. M. M. Fedorova ([Collected Works], Institute of Mining Mechanics and Technical Cybernetics imeni M. M. Fedorov), 1972, vyp. 25, pp 114-117 (from RZh-Kibernetika, No 6, Jun 72, Abstract No 6V537)

[No abstract]

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APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

1/2 009 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--REACTION OF MANGANESE II CHLORIDE WITH TRIPOTASSIUM AND TRISODIUM ORTHOPHOSPHATES -U-

AUTHOR-(03)-GOLOSHCHAPOV, N.V., MARTYNENKO, B.V., TORGASHIN, YU.T.

COUNTRY OF INFO--USSR

SOURCE--ZH. NEORG. KHIM. 1970, 15(3), 670-3

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ELECTRICAL CONDUCTIVITY, AQUEOUS SOLUTION, MANGANESE CHLORIDE, SODIUM PHOSPHATE, POTASSIUM COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1994/1730 STEP NO--UR/0078/70/015/003/0670/0673

CIRC ACCESSION NO--AP0115559

UNCLASSIFIED

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002200930001-4

2/2 009 UNCLASSIFIED PROCESSING DATE--30OCT70
CIRC ACCESSION NO--AP0115559
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MNCL SUB2-M SUB3 PO SUB4-H SUB2 O (M EQUALS K OR NA) SYSTEMS WERE STUDIED AT 25DEGREES BY SOLY., AND BY PH AND ELEC. COND. DETNS. OF AQ. SOLNS. THE SOLIDS WERE INVESTIGATED THERMOGRAVIMETRICALL.. THE SYSTEMS FORM MNKPO SUB4.H SUB2 O (M. 1275DEGREES) AND MNNAPO SUB4. PRIME2 H SUB2 O (M. 1025DEGREES), RESP.
FACILITY: VORONEZH. GOS. PEDAGOG. INST., VORONEZH. USSR.

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Soviet Inventions Illustrated, Section I Chemical, Derwent, - 3/70

238049. WELDING TRACTOR corrects the position of the electrode 19 relative to weld 20 at the same time as steering wheels 4 are directed into a new position because the electrode holder is directly attached to a toothed rack 9 which actuates through a quadrant 14 and a linkage, the front steering wheels. 31.5.67. as 1161173/25-27. S.M GOLOSHCHAPOV et al. (4.7.69.) Bul.9/20.2.69. Class 21h. Int.Cl. B23k.

AUTHORS: Goloshchapov, S. M.; Ionchenkov, V. A.; and Rubin. A. Ya.

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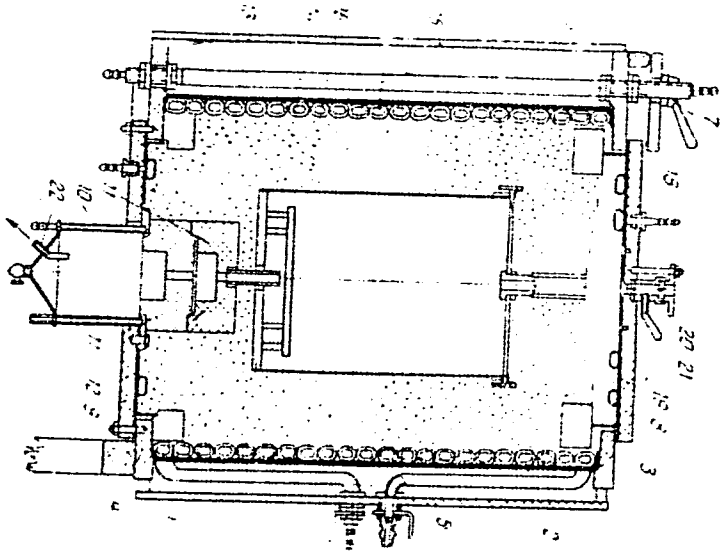

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